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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/008,780  | 11/13/2001  | Farhad Farassat      | MEISS63.001AUS      | 4733             |
| 20995   | 7590        | 11/15/2004           | EXAMINER            |                  |
| KNOBBE MARTENS OLSON & BEAR LLP<br>2040 MAIN STREET<br>FOURTEENTH FLOOR<br>IRVINE, CA 92614 |             |                      |                     | VU, PHUONG T     |
|   |             | ART UNIT             |                     | PAPER NUMBER     |
|   |             | 2841                 |                     |                  |

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                          |                  |
|------------------------------|--------------------------|------------------|
| <b>Office Action Summary</b> | Application No.          | Applicant(s)     |
|                              | 10/008,780               | FARASSAT, FARHAD |
|                              | Examiner<br>Phuong T. Vu | Art Unit<br>2841 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 9 September 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,4-18 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,12,13,15,16,20,22 and 25 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,6-11,14,17,18,21,23,24 and 26-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6-7, 10-11, 14, 21, 23-24, 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Kucharek (US 4,748,495). Regarding claim 1, the reference discloses a miniaturized circuit housing to encapsulate and provide external contacts for at least one integrated circuit 50 having circuit contacts 58, the circuit housing comprising a housing floor (comprising 48, 54) comprising a lower surface 48 which includes housing contact elements 170 for making external contact and an upper surface 54 with contact surfaces 56 arranged to correspond to the circuit contacts and the housing floor being configured to receive at least one integrated circuit 50 and a housing lid 47 permanently attachable to the housing floor so as to define the housing and the housing lid comprising at least one spring element 142 fixedly attached to a lower surface of the housing lid such that, when at least one integrated circuit is positioned within the housing, the at least one spring element bears substantially directly on the at least one integrated circuit so as to press the at least one integrated circuit resiliently against the upper surface of the housing floor with no permanent connection between the contact surfaces of the housing and the at least one integrated circuit.

Regarding claim 6, a wall that substantially rigidly connects the floor and the lid of the housing to one another at their circumference so as to define an interior of the housing and tightly seals off the interior of the housing when the housing floor and lid are attached.

Regarding claim 7, the wall is formed as part of the housing floor or the housing lid and wherein the wall is sealable via a butt joint to the respective housing lid or housing floor in a gas tight manner. The reference teaches that providing a hermetic circuit housing.

Regarding claim 10, the housing has a flat four-cornered shape with a substantially level and rectangular housing floor and housing lid.

Regarding claim 11, the lid of the housing is rigidly constructed and joined to the wall.

Regarding claim 14, the housing contact elements are at least partially spherical.

Regarding claim 21, the reference discloses an electronic circuit housing assembly comprising a circuit chip 50 having chip contacts 58, a housing floor (comprising 48, 54) comprising a plurality of outer contacts 170 disposed on a lower surface of the housing floor so as to provide external contact and which are in electrical contact with a corresponding plurality of inner contacts 56 arranged to correspond to the chip contacts and a housing lid comprising one or more resilient elements and permanently attachable 47 to the housing floor so as to define a housing wherein positioning of the chip within the housing and attachment of the housing lid to the housing floor inherently induces the one or more resilient elements to bear substantially

directly on the circuit chip so as to induce an elastic pressure on the chip so as to create solely a compression contact between the chip contacts and the inner contacts.

Regarding claim 23, at least one elastic element is interposed between the housing lid and the chip.

Regarding claim 24, the at least one elastic element comprises a spring.

Regarding claim 26, the at least one elastic element is fixedly attached to the housing lid or the chip.

Regarding claim 27, the at least one elastic element is held in compression between the housing lid and the chip by the attachment of the housing lid to the housing floor.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-9, 17-18, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kucharek (US 4,748,495). Regarding claim 8, the reference does not teach that the seal is formed by an external plastic encapsulation of at least the butt joint between the housing lid or housing floor and the wall. However, providing such an external plastic encapsulation is expedient in the art.

Regarding claim 9, the reference does not teach that the interior of the housing is filled with an inert gas when sealed. However, providing inert gas in hermetic packages is expedient in the art.

Regarding claim 17, the reference shows that contact surfaces are configured as bumps so as to make internal contact with the circuit contacts which are flat elevations. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the contact surfaces as flat elevations and the circuit contacts as bumps, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Regarding claim 18, the reference is silent about the composition of the contact surfaces. It would have been obvious to those skilled in the art at the time the invention was made that the contact surfaces may be formed from gold as this element provides excellent conductivity and is never corrosive. Regarding the manufacturing process with respect to how the contact surfaces are formed, in article claims, it has been settled that the presence of process limitations in product claims, which product does not otherwise distinguish over the prior art, cannot impart patentability to that product. (*In re Johnson*, 157 USPQ 670, 1968). No patentable weight is given to intermediate steps or intended steps in the process of manufacturing the final article. The recited final structure of the article is relied upon for the determination of patentability.

Regarding claim 28, the reference is silent about the composition of the outer contacts or the chip contacts. However, it would have been obvious to those skilled in

the art at the time the invention was made that these contacts may be formed of gold as this element provides excellent electrical conductivity and is never corrosive.

***Response to Remarks and Applicant's Interview Summary***

5. Applicant's response filed September 9, 2004 has been fully considered. In the remarks it was noted that in the prior interview with the Examiner, it was agreed upon by the Examiner that the claims, as amended, would overcome the Kucharek reference. Regrettably, upon further review of the new claim limitation that "the spring element bears substantially directly on" the integrated circuit, this indication of allowability has been withdrawn. As noted in the Examiner's Interview Summary, it was believed that the language that the spring element bears directly on the integrated circuit would be allowable over the Kucharek reference. It is believed that "bears substantially directly on" does not carry the patentable weight of the recitation "bears directly on". Therefore, the rejections based on Kucharek have been maintained as although the spring element 142 does not bear directly on the integrated, the spring element bears substantially directly on the integrated circuit and presses on the integrated circuit element through modules 52. Since the proposed claim language was indicated as allowable in the interview, this rejection is made non-final.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong T. Vu whose telephone number is (571) 272-2111. The examiner can normally be reached on Mon. & Tues., 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S. Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 11/03/04  
PTVu  
Patent Examiner